

Monthly Progress
June 2018 Progress Report
Crab Orchard National Wildlife Refuge
AUS OU RI/FS

Actions Taken to Comply with Consent Order

During the month of June 2018, activities of significance included:

1. Preparation of AOC mandated reports.
2. FWS and Shannon & Wilson (S&W) convened a call to discuss the draft FS report status on June 18th. S&W informed FWS about recent draft FS report revisions to remedial alternatives for remaining groundwater contaminants following remedy implementation, primarily for the high action alternatives. These revisions are intended to limit the remedy to less aggressive (and less costly) technologies. FWS indicated it will consider this approach providing that a limited duration for ARAR compliance can be shown, compared to the aggressive technologies described in the Comparative Analysis of Alternatives (CAA) results. S&W also informed FWS that the draft FS Report is on target for an early fall 2018 submittal.
3. FWS circulated its agenda for the draft FS report/ natural attenuation (NA) study discussion scheduled for July 9, 2017, on July 3rd.
4. FWS, S&W, AECOM, SRS and USGS convened the July 9th conference call as scheduled. Topics included the following:
 - FWS Coordination with the Other Reviewing Agencies – FWS provided feedback on discussions with USEPA, USACE and Illinois EPA during its regular monthly calls, addressing responses to comments to the FS Pilot report. FWS added that these calls have been temporarily halted, but the primary discussion items were as follows:
 - Ecological risk - Ecological risk issue discussions were held, but FWS confirmed that the conclusions regarding the BERA will remain unchanged.
 - Plume boundaries – The depictions for plume boundaries and their sub-segments as shown in previous FS document submittals (i.e. source areas, vapor risk and remedial goal extents) were discussed. FWS indicated that rationale for these boundaries has been requested as part of the draft FS report. FWS and S&W confirmed it will convene a subsequent call to discuss this rationale and a response (the call was later scheduled for August 7, 2018).
 - Quantifying NCP balancing criteria – FWS reported that there have been requests to provide numeric values for the balancing criteria shown in the text and tables in the remedy alternatives discussion in the FS Pilot, compared to the qualifying descriptors. The current approach using the descriptors will be maintained for the initial draft FS report, but that revisions for the subsequent draft may be considered.

- Maximum concentration compared to 95% UCL value for human health excavation worker exposure – The 95% UCL value was utilized to define elevated exposure areas. However, one FAA party indicated its policy prescribes using the maximum value. Any change to the maximum value will increase the number of affected exposure areas considered for remediation, but FWS reported that no resolution of this issue to-date had been discussed.
- Summary of draft FS Report – S&W reported on the progress of the document. As described in Item 2 above, the plan submittal date for the document is early fall.
- Groundwater Risk Assessment – AECOM indicated it had revised this document in accordance with comments received from the other Agencies, and that it was prepared to re-submit it to FWS for its review.
- NA Study Preliminary Findings – S&W reported that the results show that degradation has occurred to varying extents, but that several metrics collected during the NA sampling show deficiencies in carbon levels and that bacterial populations are limited. USGS added the caveat that though carbon levels may be low, the presence of tertiary and quaternary by-products (i.e. ethene, ethane) confirm degradation is progressing.

The information collected during the NA study is being referenced in the draft FS Report. However, as described above, FWS confirmed that a final NA Study report will be prepared following submittal of the draft FS report. During the upcoming period during preparation of the draft FS, S&W and USGS agreed to share responsibilities for the compilation and presentation of the NA study results. A separate call with these parties for this effort will be scheduled in the next few weeks.

- AUS 0A8S Copper Pond - FWS reported that it has collected monthly surface water data at this remedy area since March. Copper values exceeding surface water standards have been consistently measured. As described in previous Progress Reports, the Agency is considering a removal action to address these conditions to prevent potential downstream migration during high water events.

5. S&W continued preparation of the draft FS Report.

Results of Sampling and Tests

The initial NA Study sampling event was performed the week of November 6, 2017, followed by the second event the week of January 1, 2018. The TCE cometabolism/ ^{14}C samples were collected on March 21st, completing the field requirements for the NA Study. Preliminary results for a portion of the November event were received on January 17th, along with a second preliminary data set from the January event on March 8th. Preliminary gene results were received on April 23rd, and preliminary microorganism results were received on May 16th. Preliminary TCE cometabolism results, as well as all validated data for all results, remain outstanding.

Work Planned for the Next Two Months

During the months of July and August 2018 planned activities include:

1. S&W will participate in the conference call scheduled for August 7, 2018 (first bullet, second sub-bullet, Item 4 above).
2. S&W will participate in discussions with USGS regarding the NA study and report.
3. S&W will continue preparation of the draft FS report.

Problems Encountered

None.